

We claim:

1. A polyamide which contains a monoolefinically unsaturated
5 monocarboxylic acid of the formula $\text{CH}_2 = \text{CH}-(\text{CH}_2)_3-\text{COOH}$
chemically bonded at the end of the polymer chain via an
amide group.
2. A polyamide as claimed in claim 1, where the content of the
10 monoolefinically unsaturated monocarboxylic acid of the
formula $\text{CH}_2 = \text{CH}-(\text{CH}_2)_3-\text{COOH}$ is in the range from 0.001 to 2
mol%, based on 1 mole of amide groups of the polyamide.
3. A polyamide obtainable by crosslinking a polyamide as claimed
15 in claim 1.
4. A process for preparing a polyamide, which comprises carrying
out the reaction of monomers suitable for forming a polyamide
to give a polyamide in the presence of a monoolefinically
20 unsaturated monocarboxylic acid of the formula $\text{CH}_2 =$
 $\text{CH}-(\text{CH}_2)_3-\text{COOH}$.
5. A process for preparing a polyamide, which comprises carrying
out the reaction of oligomers suitable for forming a
25 polyamide to give a polyamide in the presence of a
monoolefinically unsaturated monocarboxylic acid of the
formula $\text{CH}_2 = \text{CH}-(\text{CH}_2)_3-\text{COOH}$.
6. A fiber, a film, or a molding, comprising a polyamide as
30 claimed in claim 1 or 2.

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